

Ser. No. 10/798,531  
Amendment A dated March 12, 2007  
Reply to Office Action dated December 14, 2006

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REMARKS

**I. Introduction**

This is in response to the Office Action dated December 14, 2006.

As a preliminary matter, Applicants appreciate the Examiner Kang Hu's time and courtesy extended during the March 2, 2007 telephone interview with Applicants' representative, Grace Law O'Brien. Although no agreement was made during the interview, Applicants appreciate the Examiner's consideration of Applicants' arguments. In light of the interview, Applicants submit the arguments relating to the rejections in writing. Accordingly, Applicants, in response, submit "Amendment A" in further prosecution of the present application.

As yet another preliminary matter, Applicants appreciate the Examiner's Amendment to renumber the claims to correct the numbering of Claims 1 through 27. This Amendment A will provide the numbering of the claims as corrected by the Examiner. In addition, Applicants amend Claims 5, 11, and 15-27 to ensure that the dependency to renumbered independent Claim 14 and dependent Claims 4, 10, 18, and 24 are correctly recited.

In the Office Action, the specification and Claim 1 are objected to for minor informalities. Claims 1 through 13 are rejected under 35 U.S.C. §101. Claims 6-8, 17, and 20-22 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 1-4, 6-18, and 20-27 are rejected under 35 U.S.C §102(e) as being anticipated by Doak et al. (U.S. Patent Number 6,961,055) ("Doak"). Claims 5 and 19 are rejected under 35 U.S.C. §103(a) as being unpatentable over Doak in view of Powers et al. (U.S. Patent Number 6,362,817) ("Powers"). Applicants respectfully traverse these rejections and request reconsideration of the present application.

**II. The Objections to the Specification**

The specification is objected to for including abbreviated words without expansion of these abbreviated words. In response, Applicants amend the specification to add the expanded form of the abbreviated words of "VSAM" and

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"GDF," as suggested by the Examiner. Moreover, Applicants amend the specification to correct other minor informalities found in the application and submit that no matter is added by the proposed amendments.

The specification is objected to for failing to clearly identify references as per MPEP 608.01(p)(b)(2). In response, Applicants amend the references of the copending applications on pages 1 and 9 of the specification, as suggested by the Examiner, and submit that no new matter has been added by the proposed amendments. Moreover, the incorporation, in whole or part, of the copending applications is material to the current application since these applications are related. Applicants appreciate the Examiner's notation of these minor informalities of the specification. In light of the proposed amendments, Applicants request that the objections to the specification be withdrawn.

### **III. The Objections to Claim 1**

Claim 1 is objected to for minor informalities. In response, Applicants amend Claim 1 to recite the term "computer game," as suggested by the Examiner. But since Applicants further amend Claim 1 to recite a "computer product" instead of a "computer game," Applicants retained the term "a" instead of "the" to follow the patent practice of antecedent basis in the claims. Again, Applicants appreciate the Examiner's notation of these minor informalities of Claim 1. In light of the proposed amendments, Applicants request that the objections to Claim 1 be withdrawn.

### **IV. 35 U.S.C §101 Rejection of Claims 1 through 13**

Claims 1 through 13 are rejected under 35 U.S.C §101 as being non-statutory subject matter. Although Applicants respectfully disagree with the Examiner's assertions relating to the §101 rejection of Claims 1 through 13, to expedite the prosecution of the present application, Applicants nevertheless amend Claims 1 through 13 to recite "a computer product" instead of "a computer game" and submit that a computer product easily falls within one of the statutory

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categories under §101 and the recited features of the claims are not abstract ideas.

Moreover, Applicants respectfully remind the Examiner that under the United States Patent Office's own Interim Guidelines for Examiner of Patent Applications for Patent Subject Matter Eligibility ("Interim Guidelines"), "the examiner bears the initial burden . . . of presenting a prima facie case of unpatentability." See Id., IV. D (quoting In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)). In particular, it is suggested that "if the examiner determines that it is more likely than not that the claimed subject matter falls outside all of the statutory categories, the examiner must provide an explanation." Id., IV. B. The Examiner, instead, asserts a conclusion that "Claims 1-13 are rejected under 35 U.S.C. 101 because a computer game does not fall under one of the statutory categories of the invention." See Office Paper 20061122, page 4. Applicants respectfully submit that without specific explanation as to why the recited "computer game" and its recited features do not fall within the one of the enumerated categories of a "manufacture," the Examiner fails to establish a prima facie case of unpatentability under §101, as required. See Interim Guidelines for Examiner of Patent Applications for Patent Subject Matter Eligibility, IV. B. Furthermore, Applicants also respectfully disagree with the Examiner's conclusion that "a computer game does not fall under one of the statutory categories of the invention" without performing the necessary legal analysis provided in the Interim Guidelines.

In particular, even "[i]f the examiner can establish a prima facie case that a claim does not fall into a statutory category, that does not preclude complete examination of the application for satisfaction of all other conditions of patentability." See Interim Guidelines for Examiner of Patent Applications for Patent Subject Matter Eligibility, IV. B. Perhaps to satisfy this requirement, the Examiner asserts "[a]bstract ideas are not patent-eligible." See Office Paper 20061122, page 4. This assertion from the Examiner, nevertheless, fails to complete the legal analysis of whether the claimed invention falls within §101

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judicial exceptions of laws of nature, natural phenomena, and abstract ideas. Under this legal inquiry of the §101 judicial exceptions, the Examiner is required to perform three separate legal analyses of determining (1) whether the claimed invention falls within one of the §101 judicial exceptions of an abstract idea, a law of nature, and a natural phenomenon, (2) whether the claimed invention is a practical application of one of the §101 judicial exceptions, and (3) whether the claimed invention preempts one of the §101 judicial exceptions. See Interim Guidelines for Examiner of Patent Applications for Patent Subject Matter Eligibility, IV. C.(1), (2), and (3).

And under the three separate legal analyses, more legal inquiries are required. Specifically, under the legal analysis of (2) whether the claimed invention is a practical application of one of the §101 judicial exceptions, the Examiner should further inquire (a) whether the claimed invention "transforms" an article or physical object to a different state or thing and (b) whether the claimed invention otherwise produces a useful, concrete, and tangible result. Without providing explanations of these necessary legal analyses and inquiries, Applicants respectfully submit that the Examiner's assertions do not meet the initial burden of presenting a prima facie case of unpatentability under §101. In light of this, Applicants further reserve the right to present further arguments in the future with regard to §101 rejection of Claims 1 through 13. Accordingly, for all these reasons, Applicants request that the §101 rejection of Claims 1 through 13 be withdrawn.

**V. 35 U.S.C §112, Second Paragraph, Rejection of Claims 6-8, 17, and 20-22**

Claims 6-8, 17, and 20-22 are rejected under 35 U.S.C §112, second paragraph, as being indefinite. In response, Applicants amend Claims 6-8, 17, and 20-22 to correct the antecedent basis of these claims. Again, Applicants appreciate the Examiner's notation of these minor informalities of Claims 6-8, 17, and 20-22. In light of the proposed amendments, Applicants request that the §112, second paragraph, rejection of Claims 6-8, 17, and 20-22 be withdrawn.

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**VI. 35 U.S.C §102(e) Rejection of Claims 1-4, 6-18, and 20-27**

**A. Doak does not disclose, teach, or suggest "an application programming interface program that . . . accepts requests for data from the game engine program, accesses the data from the map database, and provides the data in a suitable format to the game engine program," as recited in Claims 1 and 14.**

Claims 1-4, 6-18, and 20-27 are rejected under 35 U.S.C §102(e) as being anticipated by Doak. Applicants respectfully traverse this rejection because Doak does not disclose, teach, or suggest the features of an application programming interface program that works in conjunction with a game engine that presents a computer game to a user and a map database having data that represent roads in a geographic locale, as provided by Claims 1 and 14. In order to more clearly recite the features of the game engine, however, Applicants amend Claim 14 without intending to narrow the scope of the originally filed Claim 14. Applicants further submit that the proposed amendments of Claim 14 are supported by the specification and no new matter has been added.

In rejecting Claims 1 and 14, the Examiner provides the following arguments:

Re claim 1: Doak discloses a computer game comprising a map database (see col[sic] 4, lines 30-45; col[sic] 4, lines 59-65) containing data that represent roads in a geographic locale; a user interface (see col[sic] 11, lines 36-40; col[sic] 30, lines 7-22; Fig[sic] 8a; a game engine program (col[sic] 3, line 3) that runs on a computer platform (see col[sic] 12, line 1; col[sic] 15, line 2) and that presents a game to a user interface; and an application programming interface program (see col[sic] 2, lines 60-61) that runs on the computer platform (see col[sic] 12, line 1; col[sic] 15, line 2), accepts requests for data from the game engine program, accesses the data from the map database, and provides the data in a suitable format to the game engine program (col[sic] 49, lines 27-42).

See Office Paper 20061122, page 5.

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Re claim 14: Doak discloses a method of operating a computer game that runs on a computer,[sic] platform comprising (col[sic] 12, line 1; col[sic] 15, line 2) using an application programming interface program (col[sic] 2, lines 57-65) that runs on the computer platform to accept requests for geographic data (col[sic] 4, lines 30-45) from a game engine program (col[sic] 49, lines 27-42), using the application programming interface program to access data from a map database (col[sic] 4, lines 30-45), and using the application programming interface program to provide the data in a suitable format to the game engine program (col[sic] 49, lines 27-42).

See Office Paper 20061122, pages 7 and 8.

Although the Examiner provides multiple cited portions from Doak, these cited portions merely match, at best, the term of an "application programming interface program" but fail to disclose the features of the recited application programming interface program as it relates to a recited map database and the recited game engine program, as provided by the Claims 1 and 14. This is especially peculiar because it appears that the only reason why these unrelated portions of Doak were randomly cobbled together was to match the words recited in the claim and not the recited features in the claims. In other words, a proper API disclosure cannot be expressed based on coincidental similarities between term found in the Claims and a patchwork of unrelated concepts in Doak.

In particular, Claims 1 and 14 recite an application programming interface program that accepts requests for data from a game engine program that presents a computer game to a user, accesses data from a map database, and provides the data in a suitable format to the game engine program. Even if *arguendo* Applicants indulge the Examiner's random binding of these unrelated portions from Doak, the cited portions nonetheless fail to disclose the recited features of the API as claimed.

For example, Column 4, lines 30-45 and 59-65 from Doak discloses an embodiment of map builder data having 3D components for generating a 3D

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virtual environment, as represented in the non-volatile data memory 204 from FIG. 2 of Doak (reproduced below).

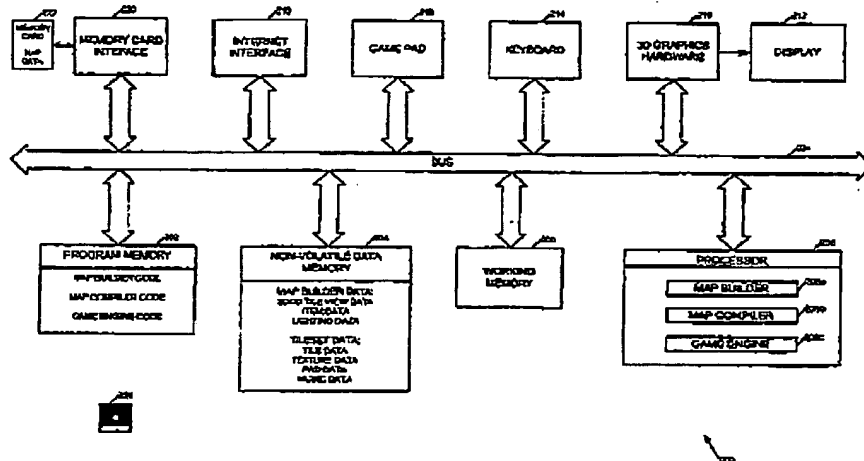


Figure 2

So even if *arguendo* Applicants agree that Doak's map builder data 204 correspond to the recited database, and the game engine 208c corresponds to the recited game engine, Doak nevertheless fails to disclose any API or program that corresponds to the functions of the recited API as provided by Claims 1 and 20. Specifically, two programs are disclosed from Doak, a map builder 208a and a map compiler 208b (shown in FIG. 2 of Doak). The map builder 208a, in Doak, allows a user to build a map of a 3D component for creating a virtual environment (Doak, Column 18, lines 24-26), but this map builder 208a does not interface with the game engine 208c. The map compiler 208b, on the other hand, compiles the map into 3D virtual environment data (Doak, Column 18, lines 27-29), but the map compiler 208b does not accept requests for data from the game engine program as provided by the recited API in the claims. The unilateral (one way interface) of the map compiler 208b to the game engine 208c is, in fact, specifically shown in FIG. 13 of Doak (reproduced below).

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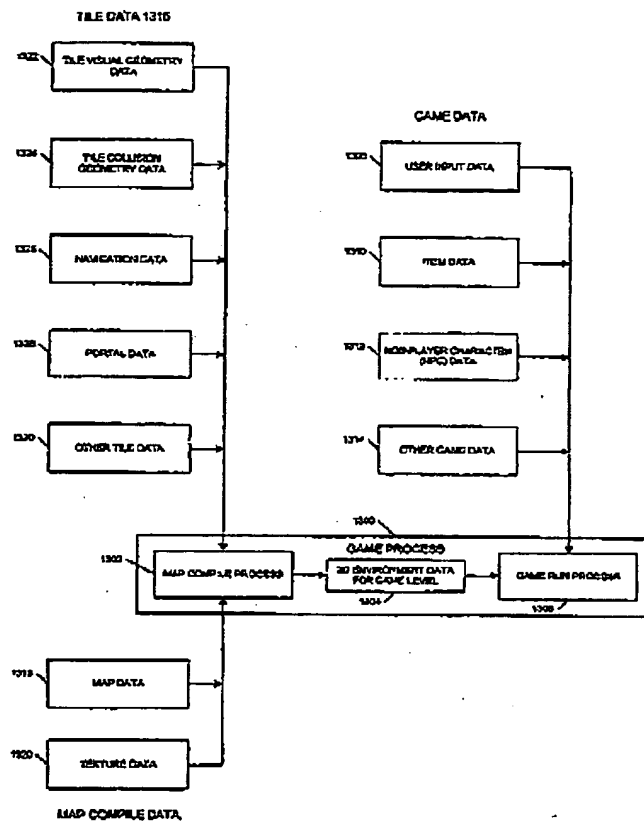


Figure 13

As shown in FIG. 13, the map compile process 1302 outputs to 3D environment data 1304 to the game run process 1306, but the map compile process 1302 cannot accept requests for data from the game run process 1306, since an arrow is not shown from the game run process 1306 to the map compile process 1302. Thus, even given the most reasonable broadest interpretation, none of the programs 208a, 208b from Doak discloses, teaches, or suggests an API that provides an interface between the map database and the game engine as recited in Claims 1 and 14.

In another assertion, the Examiner cited Column 2, lines 60-61 from Doak, but this cited portion discloses nothing more than a 3D API for controlling the computer's hardware to display 3D graphics on a display. Likewise, Column 49, lines 27-42 from Doak is another unrelated cited portion that discloses a 3D



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design program that sets a flag when visual geometry is to be used as collision geometry. The problem is that the 3D API that controls a graphic card and the 3D design program that sets flags for collision geometry have nothing to do with an API that interfaces between the map database and the game engine as recited in Claims 1 and 14. For all these reasons, Applicants respectfully submit that none of these cited portions of Doak actually disclose or relate to the feature of an API that works in conjunction with a map database containing data that represent roads in a geographic locale and a game engine that presents a computer game to a user, as recited in independent Claims 1 and 14. Accordingly, Applicants respectfully request that the §102 rejection of Claims 1 and 14 be withdrawn.

**B. Doak does not disclose, teach, or suggest "wherein the application programming interface program provides for spatial queries of data from the map database," as recited in Claims 9 and 23.**

In rejecting Claims 9 and 23, the Examiner cited Column 2, lines 57-65 from Doak, which provides:

Players of games on personal computers often upgrade their computer hardware by incorporating a 3D graphics card providing dedicated hardware for speeding-up the type of operations generally encountered when processing 3D graphics. Three-dimensional graphics may implemented by means of a 3D graphics engine providing 3D application program interface (API) calls for controlling the computer's hardware to display three-dimensional graphics either on a visual display unit or, more likely for a games console, on a television. Common 3D graphics languages include OpenGL (from Silicon Graphics, Inc.) and Direct3D (from Microsoft Corporation) (trade marks).

See Doak, Col. 2, ll. 54-66 (See also Office Paper 20061122, pages 6 and 9.

This cited portion of Doak discloses a 3D API calls for controlling the computer's hardware to display 3D graphics. As such, this 3D API works only with hardware, but nothing from this cited portion explicitly or implicitly relates to any query-related functions, let alone specifically spatial queries of data from the map database as recited in Claims 9 and 23. A spatial query is defined as a

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statement or logical expression that selects geographic features based on location or spatial relationship. For example, a spatial query might find which points are contained within a polygon or set of polygons, find features within a specified distance of a feature, or find features that are adjacent to each other. See Wade, Tasha, Sommer, Shelly, A to Z GIS: An Illustrated Dictionary of Geographic Information System, 2<sup>nd</sup> Edition, (2006), ESRI Press. For the Examiner's convenience, a copy of the definition of "spatial query" is attached from the online site as "Appendix A."

Moreover, for the Examiner's understanding and consideration, some examples of, though not exhaustive, the term "spatial queries" are provided. According to one embodiment, the spatial query function 212 returns data records of a specified type (e.g., data that represent road segments) based on location criteria included in the query (Applicants' application, page 11, lines 4-5). For example, a spatial query may request all the data records that represent road segments that are within 5 km of a given latitude and longitude (Applicants' application, page 11, lines 6-7). Another spatial query may request that all the data records that represent restaurants that are within a rectangular area having specified geographic boundaries (Applicants' application, page 11, lines 7-9). The spatial search function 212 in the geographic data API 210 returns to the requesting component (e.g., a game engine) the data records that meet these criteria (Applicants' application, page 11, lines 9-11). For all these reasons, Applicants respectfully request that the §102 rejection of dependent Claims 9 and 23 be withdrawn.

**C. Dependent Claims 2-4, 6-8, 10-13, 15-18, 20-22, and 24-27.**

Although other dependent claims are similarly distinguishable from the cited portion of Doak, Applicants opt to reserve these other arguments relating to these other dependent claims. As such, dependent Claims 2-8, 10-13, 15-22, and 24-27 ultimately depend directly or indirectly upon independent Claims 1 and 14, which has been shown as allowable above. Moreover, the claims introduce additional content that, particularly when considered in context with Claims 1 and

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14 from which they depend, comprises additional incremental patentable subject matter. For all these reasons, Applicants respectfully request that the §102 rejection of dependent Claims 2-8, 10-13, 15-22, and 24-27 be withdrawn.

**VII. 35 U.S.C §103(a) Rejection of Claims 5 and 19**

Dependent Claims 5 and 19 ultimately depend directly or indirectly upon independent Claims 1 and 14, which have been shown as allowable above. Moreover, the claims introduce additional content that, particularly when considered in context with Claims 1 and 14 from which they depend, comprises additional incremental patentable subject matter. For all these reasons, Applicants respectfully request that the §103 rejection of dependent Claims 5 and 19 be withdrawn.

**VIII. Conclusion**

Applicants submit that all the pending claims in the present application are allowable and that the present application is in condition for allowance. If any issues remain in the present application, the Examiner is invited to call the undersigned at the telephone number below.

Respectfully submitted,



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## GIS Dictionary

This dictionary includes terms from GIS operations such as analysis, data management, and geocomputation; from rapidly evolving uses of GIS for modeling, GIScience, and Web-based GIS; and from the GIS foundation fields of cartography, spatial statistics, computer science, surveying, geodesy, and remote sensing. This online GIS Dictionary also includes ESRI software-specific terminology.

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### spatial query

1. [spatial analysis] A statement or logical expression that selects geographic features based on location or spatial relationship. For example, a spatial query might find which points are contained within a polygon or set of polygons, find features within a specified distance of a feature, or find features that are adjacent to each other.

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APPENDIX "A"